

### Claims

1. A method for calibrating a color display coupled to the computer system comprising the steps of:
  - displaying one or more screens on said display; and
  - adjusting the brightness and contrast of the display to set the white balance, gamma and tone, which accounts for the influence of ambient illumination on color reproduction of said display and provides superposition of color of the display.
2. The method according to Claim 1 further comprising the step of providing at least one sensor is directed toward said display for measuring the color of the display to the computer system.
3. A method for calibrating a color display having brightness and contrast controls that receives signals from a host computer in a plurality of color channels, said method comprising the steps of:
  - increasing the contrast of the display to about a maximum level for the display;
  - increasing the brightness of the display to about a maximum level for the display;
  - lowering the brightness of the display until superposition of colors is observed;
  - measuring at least the neutral balance and tone reproduction of said display; and
  - adjusting said balance and tone to match desired values.
4. A system for calibrating a sensor having one or more channels which is useful for calibrating display surfaces comprising:
  - one of a self-luminous-display and a reflective surface;
  - a measurement sensor and a reference sensor each directed toward one or more display surfaces;
  - a computer system coupled to the display, measurement sensor and reference sensor; and

a monochromator for illuminating the reflector with light of certain color in which the color of said light is controllable by the computer system and said measurement and reference sensors are capable of measuring the color of said reflector when illuminated by said monochromator to calibrate the measurement sensor in accordance with the measurements taken by both the measurement sensor and the reference sensor.

5. A method of calibrating color devices associated in a network comprising the steps of:

adjusting one or more devices to match one or more reference images;  
measuring adjusted calibration parameters of said devices; and  
storing said calibration parameters for use in calibrating color devices in said network to reproduce substantially the same colors within the capabilities of said devices.

6. The method according to Claim 5 wherein ambient illumination diffusely reflected from the screen of said display is measured and said measurements are incorporated with gamut color data.